

# Manufacturing Energy Technologies in California

*from business plans to industrial transformation*

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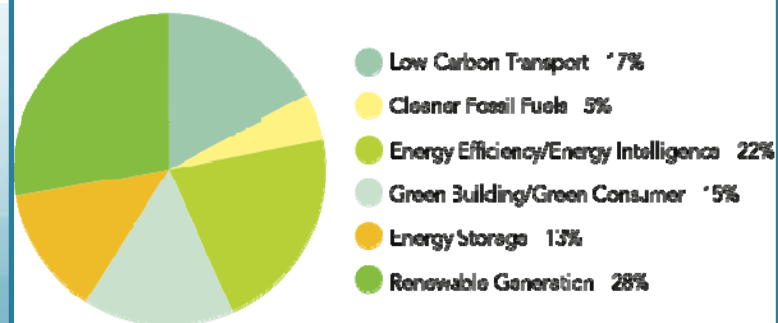
California Clean Energy Fund

Strategic Guidance  
from industry-leading  
Board of Directors



Distributed & Large-Scale Renewable Energy	Energy Efficiency & Intelligence	Low-Carbon Transportation Technologies	Green Building & Green Consumer Technologies	Cleaner Fossil Fuels
             	           	        	    	

CalCEF Capital Portfolio Allocation, Q1 2010



# Innovation – Adoption Paradox

## The Setting

- A range of California entities — including private industry, regulated and public utilities, transportation authorities and others — are facing technology pressures and risks that are a function of the rapidly accelerating policy attention to clean energy and climate change.
- Existing and proposed policies obligate these entities to either procure technological solutions to meet their environmental obligations, solutions that might not exist in the marketplace, or face substantial penalties for noncompliance.
- Entrepreneurial activity and venture investment in the cleantech energy field has increased significantly in recent years.
- Established firms have difficulty in rapidly and cost effectively commercializing innovation and selling or using new products.

## The Challenge

- How to build and grow sustainable, clean energy enterprises of scale?
- How to overcome a contradiction inherent in that process given the policy mandates, cost constraints and time horizons of our climate, economic, and energy security goals?

# Lack of Performance History Compounds the Problem

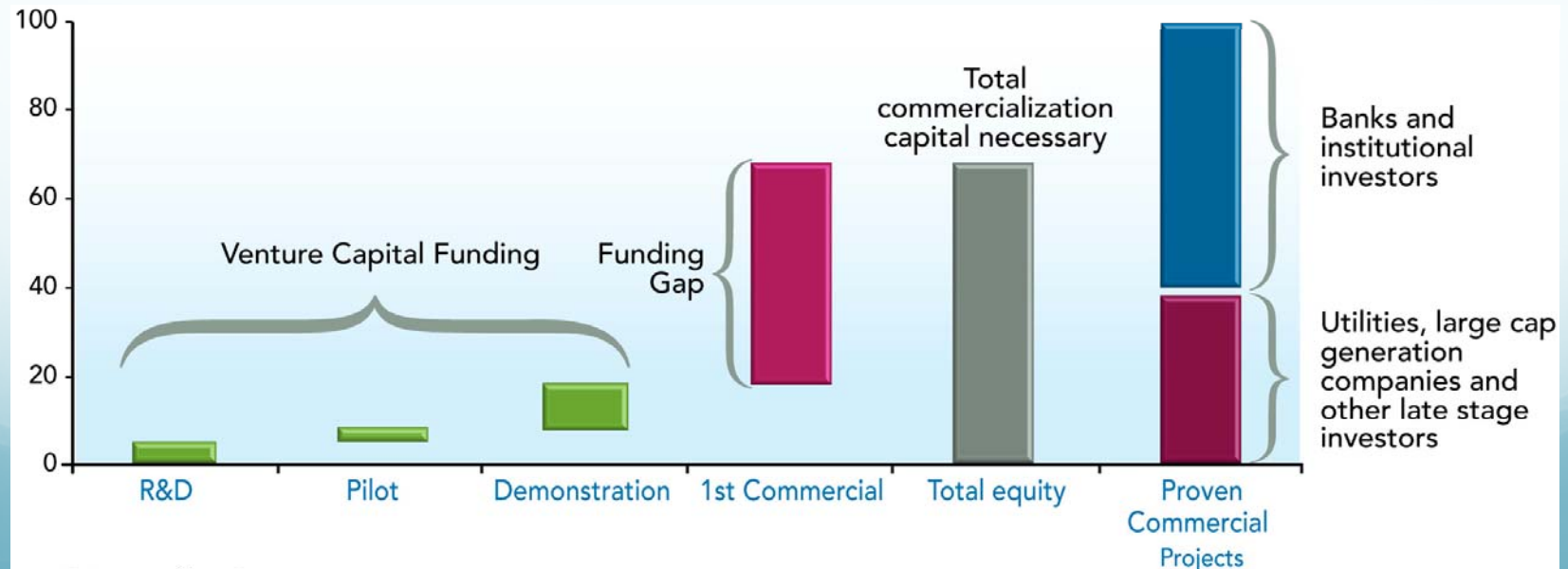
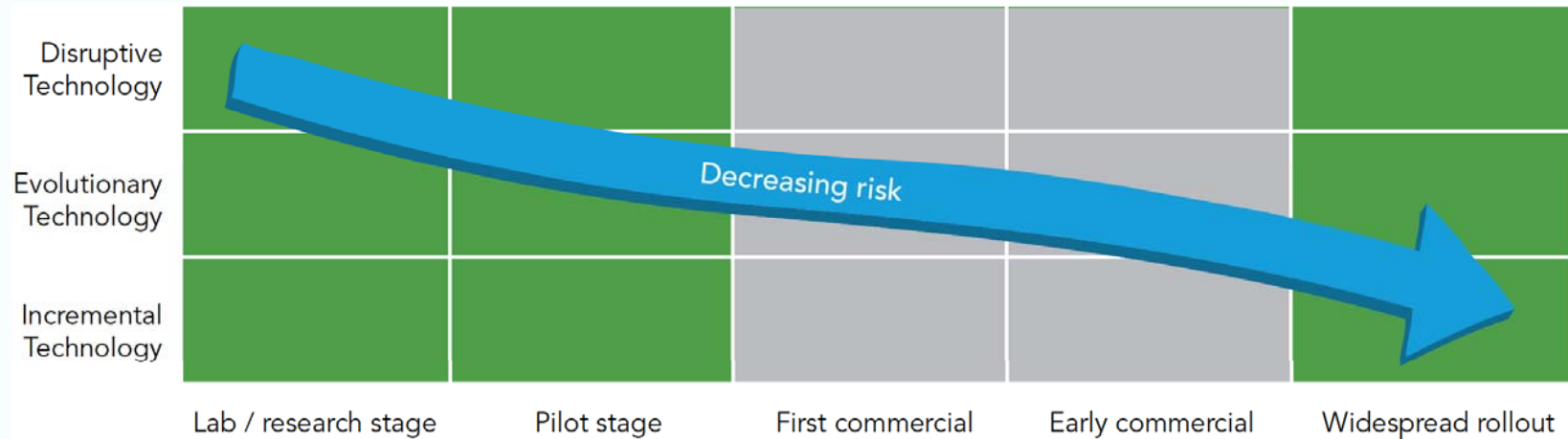
## The Outlook

- Still plenty of capital to be deployed, great teams to deploy it, and substantial innovation to invest in.
- Continuing up-market challenges the VC model – will VCs embrace and be effective in backing large-scale manufacturing?
- New funds will struggle to get raised – lack of exits.
- Capital-intensive plays not in favor.

## The Need

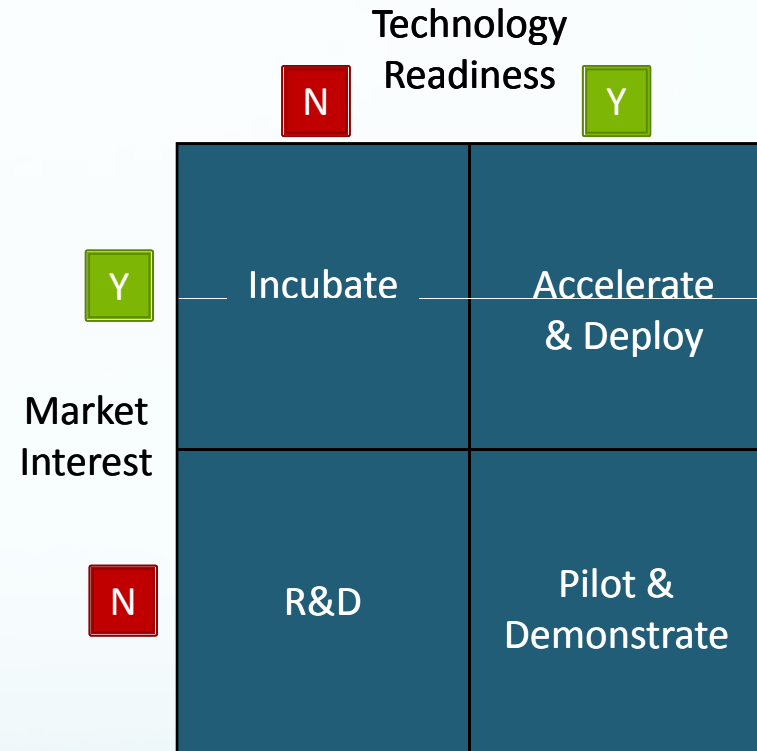
- Debt markets that work as technologies mature, encouraging risk equity.
- IPO and M&A activity that is robust and strategic, shortening paths to market.
- A different approach to deploying existing VC funds – back off the 1% chance of 20X returns model.

# Funding 1<sup>st</sup> Commercial Projects



# Focus on Demand

- A critical emphasis on solutions that are market-relevant
  - i.e. that are responsive to present or anticipated demands in the market for energy and environmental technologies
- A basis in the existing stock of venture capital-backed clean technology solutions
  - Matured over the past five years' cycle of venture activity, which form the immediate basis for real green jobs growth opportunities.





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